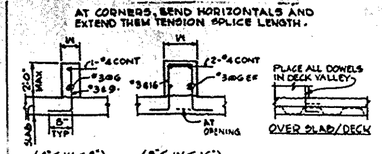
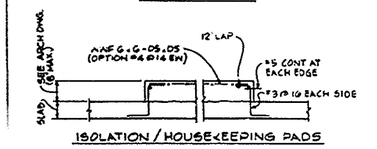
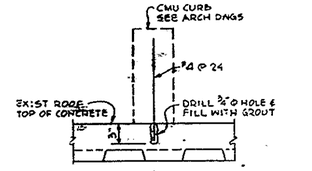


FLOOR CURBS

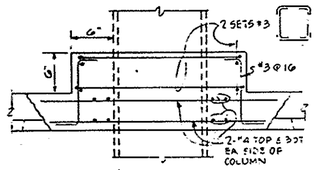


ISOLATION / HOUSEKEEPING PADS

1. FOR SIZE AND LOCATION SEE ARCHITECTURAL, MECHANICAL AND STRUCTURAL DRAWINGS.
2. ROUGHEN SURFACE OF SLAB, CLEAN THOROUGHLY AND APPLY EPOXY BONDING COMPOUND IMMEDIATELY BEFORE CASTING CURB OR PAD.

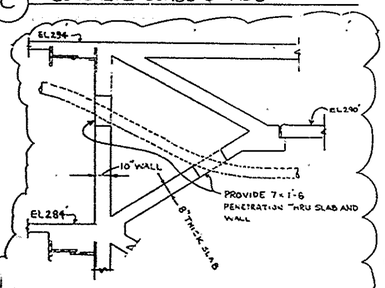


CMU CURBS AT EXISTING ROOF SLAB

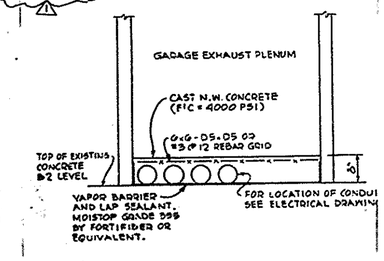


CURB AT COLUMN STUBS AT EXISTING ROOF

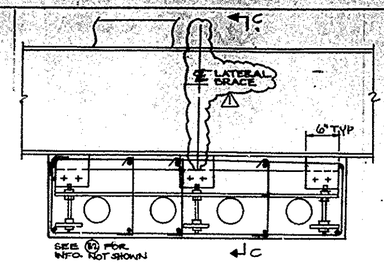
(C) CONCRETE CURBS & PADS

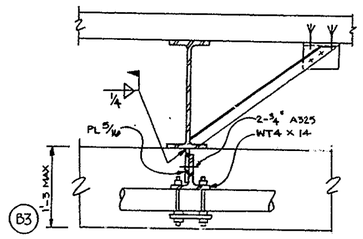


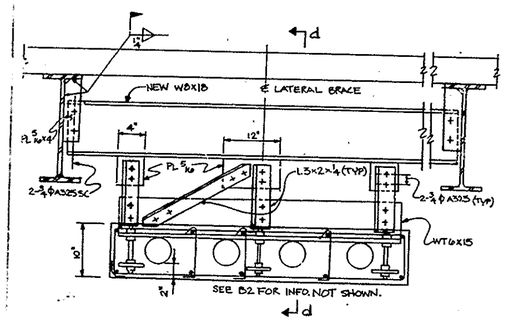
(D) FEEDER PENETRATION THROUGH B2 LEVEL WALL OF 1WTC AND 2WTC.

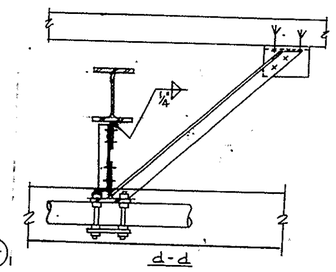


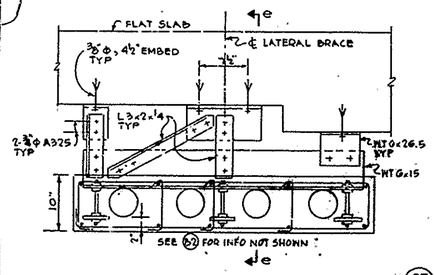
(B6) HORIZONTAL CABLE DETAIL AT FLOOR OF GARAGE EXHAUST PLENUM

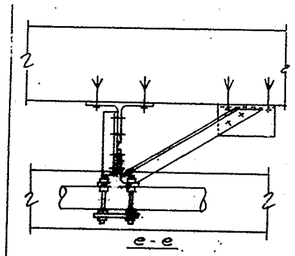






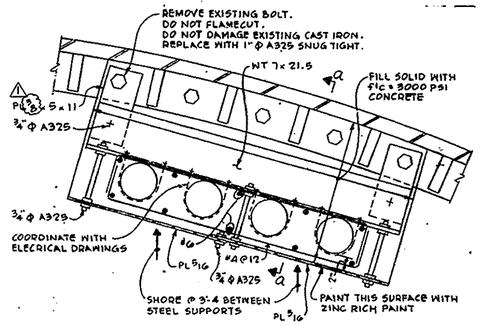


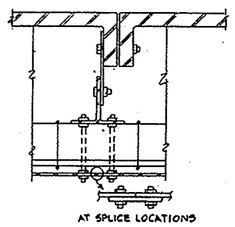




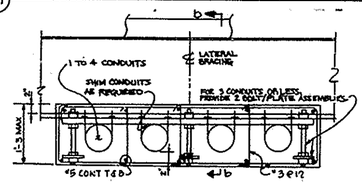
NOTES FOR CONCRETE ENCASED HORIZONTAL FEEDERS:

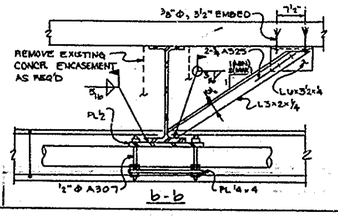
1. CONTRACTOR SHALL SURVEY THE WORK SITE AND SELECT LOCATIONS FOR FEEDER SUPPORT BRACKETS. TYPICAL DETAILS SHOW VARIOUS BRACKET CONFIGURATIONS THAT ACCOMMODATE CONTEMPLATED FIELD CONDITIONS. NOT ALL CONDITIONS HAVE BEEN CONTEMPLATED. CONTRACTOR SHALL PROPOSE ALTERNATIVE BRACKET CONFIGURATIONS AS REQUIRED TO ACCOMMODATE ACTUAL CONDITIONS.
2. CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS OF FEEDER BRACKETS. SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING:
   a) BRACKET LOCATION DRAWINGS INCLUDING PLAN LOCATION AND ELEVATION AND THE DESIGNATION OF EACH BRACKET TYPE. DRAW TO 1/8 INCH = 1'-0".
   b) DETAIL DRAWINGS OF THE BRACKETS.
   c) FORMWORK DRAWINGS FOR THE CONCRETE ENCASEMENT INCLUDING SHORING REQUIREMENTS.
3. UNLESS OTHERWISE NOTED, PROVIDE SUPPORT BRACKETS AT 5'-0" SPACING.
4. IN ADDITION TO THE REQUIRED BRACKET SPACING IN NOTE 3, PROVIDE BRACKETS AT ALL LOCATIONS WHERE:
   a) FEEDERS CHANGE DIRECTION, EITHER VERTICALLY OR HORIZONTALLY.
   b) IMMEDIATELY ADJACENT TO PENETRATIONS THROUGH WALLS.
   c) WHERE A SINGLE CABLE DIVERGES FROM A GROUP OF CABLES.
5. LATERAL BRACING SHALL BE PROVIDED AT ALTERNATE BRACKET LOCATIONS AS SHOWN IN THE TYPICAL DETAILS. ADDITIONALLY, LATERAL BRACES SHALL BE PROVIDED AT CHANGES IN DIRECTION AND AT WALLS PER NOTE 4.
6. STRUCTURAL STEEL FOR BRACKETS SHALL BE FY 36. SHOP PRIME PER GENERAL NOTES.
7. CONCRETE ENCASEMENT SHALL BE F'C = 3000 PSI.
8. AFTER SET CONCRETE ANCHORS SHALL BE MAXI BOLT BY DRILLCO DEVICE LTD.
9. COMPENSATION FOR INSTALLATION OF FEEDER SUPPORT BRACKETS AND CONCRETE ENCASEMENT INCLUDING REMOVAL AND REPLACEMENT OF EXISTING CONSTRUCTION IN THE WAY WILL BE PAID FOR AT THE NET COST THEREOF. "NET COST" SHALL BE COMPUTED IN THE SAME MANNER AS IS COMPENSATION FOR EXTRA WORK, INCLUDING ANY PERCENTAGE ADDITION TO COST, AS SET FORTH IN THE CLAUSE OF THE CONTRACT PROVIDING COMPENSATION FOR EXTRA WORK. COMPENSATION FOR SAID NET COST WORK SHALL NOT BE CHARGED AGAINST THE TOTAL AMOUNT OF COMPENSATION AUTHORIZED FOR EXTRA WORK.



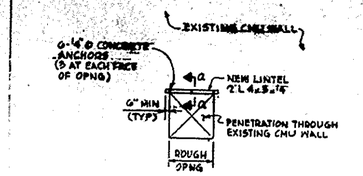


(B1) HORIZONTAL CABLE SUPPORT DETAIL IN OLD PATH TUBE





(B) CONCRET ENCASED HORIZONTAL FEEDERS



ELEVATION OF EXISTING CMU WALL

GENERAL NOTES:

1. STRUCTURAL STEEL SHALL BE ASTM A36. SHOP PRIME PER GENERAL NOTES.
2. CLEAN STEEL WITH A POWER WIRE BRUSH TO REMOVE LOOSE MILL SCALE, RUST, DIRT AND OTHER FOREIGN MATERIALS. SHOP PRIME WITH TNEMEC 10-99 OR OTHER AS ACCEPTED. FIELD TOUCH UP WITH SAME.
3. CEMENT GROUT SHALL BE NON-SHRINK CONFORMING TO ASTM C1107 AND SHALL BE PREMIXED AND BAGGED BY MANUFACTURER.
4. CONCRETE ANCHORS SHALL BE HILTI DROP-IN ANCHORS OR EQUIVALENT INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
5. COMPENSATION FOR CMU WALL PENETRATIONS INCLUDING CUTTING, REINFORCING, PATCHING, AND REMOVAL AND REPLACEMENT OF EXISTING CONSTRUCTION IN THE WAY WILL BE PAID FOR AT THE NET COST THEREOF. "NET COST" SHALL BE COMPUTED IN THE SAME MANNER AS IS COMPENSATION FOR EXTRA WORK, INCLUDING ANY PERCENTAGE ADDITION TO COST, AS SET FORTH IN THE CLAUSE OF THE CONTRACT PROVIDING COMPENSATION FOR EXTRA WORK. COMPENSATION FOR SAID NET COST WORK SHALL NOT BE CHARGED AGAINST THE TOTAL AMOUNT OF COMPENSATION AUTHORIZED FOR EXTRA WORK.

BASIC PROCEDURE:

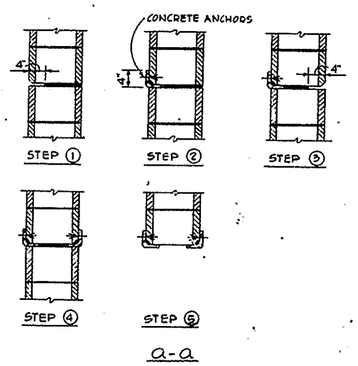
STEP 1
LOCATE THE MORTAR JOINT THAT DEFINES THE TOP OF THE NEW ROUGH OPENING. ROUTE THE MORTAR JOINT OF THE WALL TO RECEIVE THE ANGLE. BEVEL THE EDGE OF THE BLOCK TO CLEAR THE FILLET OF THE ANGLE. SAW CUT THE VERTICAL EDGES OF THE ROUGH OPENING.

STEP 2
SET THE ANGLE, AFTER FIRST FILLING THE ROUTED SPACE WITH A STIFF CEMENT GROUT SO AS TO OBTAIN FULL BEARING, TOP AND BOTTOM. DRIVE THE ANGEL INTO THE SPACE WITH A HAMMER. INSTALL CONCRETE ANCHORS.

STEP 3
NOT LESS THAN 24 HOURS AFTER INSTALLING THE ANGLE ON THE ONE SIDE OF THE WALL, REPEAT STEP 1 ON THE OTHER SIDE OF THE WALL.

STEP 4
SET THE ANGLE FOLLOWING THE PROCEDURE IN STEP 2.

STEP 5
DEMOLITION OF THE WALL BELOW CAN PROCEED IMMEDIATELY FOLLOWING THE COMPLETION OF STEP 4.



(A) CMU WALL PENETRATIONS

Sheet 30 of 112

THE PORT AUTHORITY OF NY & NJ

ORIGINAL SIGNED & SEALED BY N.Y. P.E. (OR R.A.)

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30 EAST 40TH STREET NEW YORK, NY 10016-0000
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I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF ONE OF THE CONTRACT DRAWINGS, CONSTITUTING A PART OF CONTRACT NO. WTC-845.071 IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT THE TIME THE SAID CONTRACT WAS EXECUTED BY THE PARTIES.

DATE 11/16/98 Svetlana A. Holem
SPEC. WRITER

DATE 4/10/98 R. L. Sweeney
ENGINEER OF DESIGN

No.	Date	Revision	Approved
1	12/2/97	REVISED NOTES: ADD DET (B)	RZ
0	11/17/97	ISSUED FOR BID	-

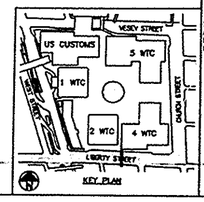
Engineering Department
Design Division

The World Trade Center

STANDBY POWER
5 WORLD TRADE CENTER

STRUCTURAL

TYPICAL DETAILS



This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without it's written consent.

MVS	JAL	RZ
Designed by	Drawn by	Checked By

Date 11/17/97 Scale

Contract Number WTC-845.071 Drawing Number S1-02

3660900